Observations on *Ancyrona* Reitter, 1876, with a key to Central European Trogositidae

(Coleoptera, Trogositidae)

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Abstract

Two new species of the family Trogositidae, *Nemozoma caucasicum*, Ménétriès, 1832 and *Grynocharis japonica* (REITTER, 1889), are newly recorded from Czechoslovakia. Latter species and *Ostoma diversa* PIC, 1921 are placed within the genus *Ancyrona* REITTER, 1876. *Ancyrona lewisi* REITTER, 1876 is designated as the type species of the genus.

A key to the Central-European Trogositidae is presented.

Observations on *Ancyrona* REITTER, 1876.

Up till now, 44 species have been classified within *Ancyrona* REITTER, 1876 (distribution: Africa south of Sahara, South America, Eastern Asia, Australia). REITTER (1876) erected the genus without designation of a type species. He classified four African and three Asian species within the genus. Since systematic position of the African species is unclear (they can belong to the genus *Latolaeva*, REITTER, 1876), I here designate the Asian species *Ancyrona lewisi* REITTER, 1876 as the type species of the genus.

For an explanation of morphological terms see KOLIBÁC (1987, 1989a,b).

Ancyrona REITTER, 1876

Ancyrona REITTER, 1876.: 51.

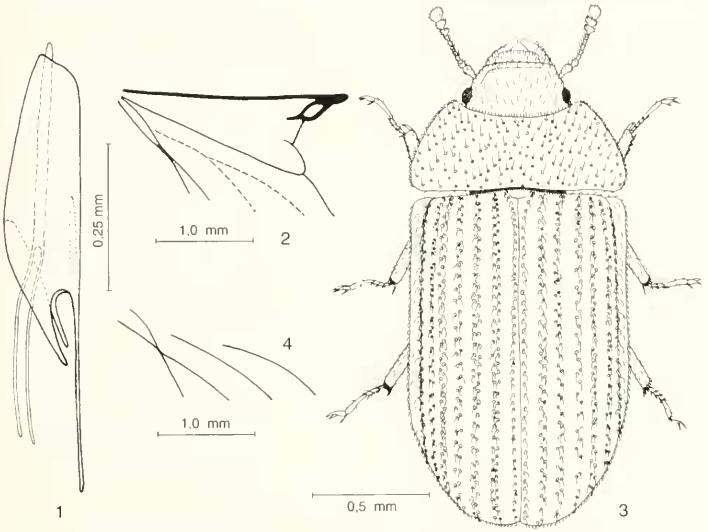
Type species *Ancyrona lewisi* REITTER, 1876 (present designation).

Redescription of *Ancyrona lewisi* REITTER, 1876

Ancyrona lewisi REITTER, 1876: 52.

H e a d : Gular sutures long, parallel. Deep subocular groove (for antennal joints 1, 2, 3) present. Mandibles without distinct molar part. Antennal club 3-segmented, antenna with 10 joints. Apical joints of labial and maxillary palps coniform. Mentum large (Fig. 19). Head dorsally with black short and thick scaly hairs.

T h o r a x : Front coxal cavities open behind. Front coxae strongly transverse. Prosternal process strongly dilated (Fig. 18). Mesocoxal cavities nearly closed by meso- and metasternite. Mesocoxae transversely oval, intercoxal process slender. Discriminal line of metasternite imperceptible. Metacoxae transverse, long, with straight groove. Trochanters and femora are not in heteromeran (tenebrionid) position (bases of femora are not elongate). All tibiae with short spines on outer and part of ventral faces. Tibial apices each with one long curved and one short straight spines. The first tarsomeres very small and scarcely perceptible, tarsi 5-segmented. Bisetose empodium distinct. Pronotum with black short and thick scaly hairs and light longitudinal stripe at middle. Mesonotum with wide scutellum (Fig. 3). Elytra without carinae, with impressions in double rows, with thick short scaly hairs. Scaly hairs are black, or pale, the latter form X-like picture in middle of elytra.



Figs. 1-4. 1-3: *Ancyrona japonica*. 1. aedeagus laterally; 2. wing venation; 3. habitus. 4. *Ancyrona diversa*, wing anal field.

A b d o m e n : with 5 visible bordered sternites. Female internal copulatory organs see Fig. 17.

B o d y lightly brown, legs and antennae yellowish brown.

B o d y l e n g t h : 5.0 mm.

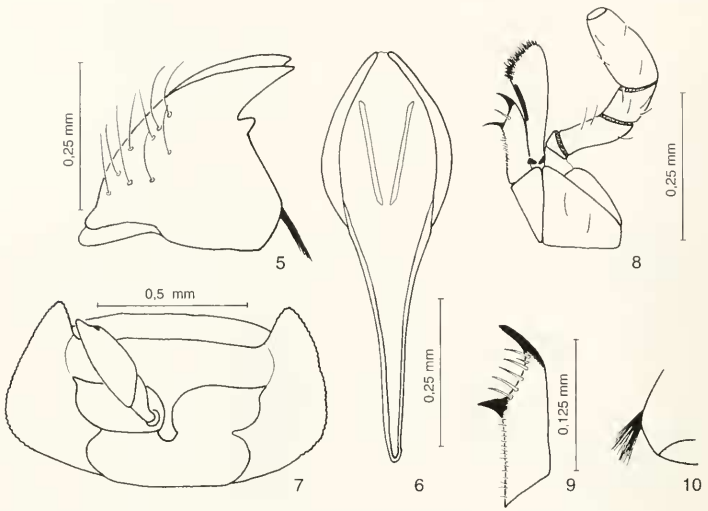
M a t e r i a l e x a m i n e d : Holotype female: "Japonia". Coll. Hungarian Natural History Museum, Budapest).

Redescription of *Ancyrona diversa* (PIC, 1921) comb. n.

Ostoma diversa PIC, 1921: 1.

H e a d : Gular sutures shape similar to that of *A. lewisi*. Frons flat, with longitudinal wrinkles. Front margin of frons with small apodeme in its central part. Subocular groove distinct. Impressions on vertex oviform. Head with longer and thicker hairs than in *A. japonica*. Antennae 10-segmented. The last antennal joint subelliptic. Lacinia with several (about 5 - 7) spines between hooks (Fig. 9). Prosthecal process of mandible with more slender and more irregular hairs (Fig. 10) than in *A. japonica*. Labrum and labium as shown Figs. 11, 15.

T h o r a x : Structure of ventral side of thorax similar to that of *A. lewisi*. Front corners of pronotum more or less subacuminate (with variability among specimens). Anterior margin of pronotum more deeply emarginate than in *A. japonica* (cf. Fig. 7), but shape of pronotum is varied among specimens. Sculpture of pronotum coarser with rather large impressions. Pubescence is similar to that of head. Elytra with sculpture similar to that of *A. japonica* but double rows of impressions from 1 to 6 with scarcely visible carinae. Hairs which grow from impressions are slender, long and decumbent. Wings with four veins in anal field. 1A not connected with 2A, both



Figs. 5-10. 5-8: *Ancyrona japonica*: 5. mandible; 6. spicular fork; 7. prothorax ventrally (right leg removed); 8. maxilla. 9-10: *Ancyrona diversa*: 9. lacinia; 10. prosthecal process.

distinct. 3A and 4A briefly coalescent in mid-length (Fig. 4). Coxae and coxal cavities similar to those of *A. lewisi*. Front tibiae with one thick hooked apical spine and one smaller one. Other tibiae with spines subidentical.

A b d o m e n : Tegmen open ventrally, divided into two parts (normal trogositid position) (Fig. 13). Phallus stouter than in *A. japonica* (Figs. 12, cf. Fig. 1). Segment 9 of male not as reduced as in *A. japonica* (Figs. 14, cf. Fig. 6). Female copulatory organs of studied specimens were in poor condition (Fig. 16).

All b o d y dark brown to black but antennae and legs are lighter.

B o d y l e n g t h : 4.5 - 5.5 mm.

M a t e r i a l e x a m i n e d : Holotype male, 1 paratype female and 1 paratype sex unknown: "Vladivostok, Sibir. or. Ussuri, Dr. Jurecek 1919". (Coll. National Museum, Prague).

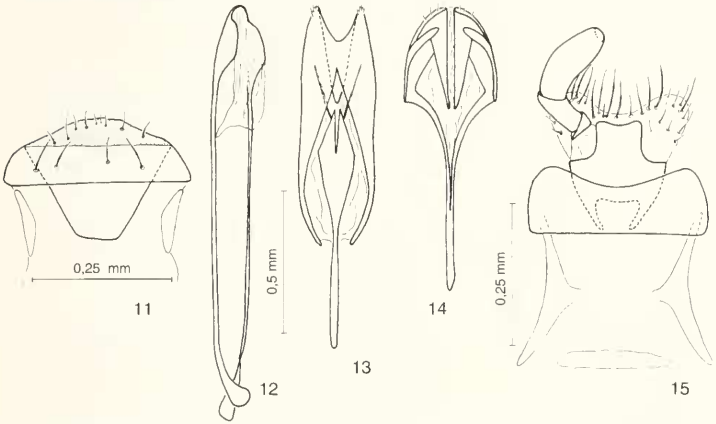
Redescription of *Ancyrona japonica* (REITTER, 1889) comb. n.

Ostoma japonica REITTER, 1889: 217

Grynocharis japonica: LÉVEILLÉ, 1910: 31

H e a d : General structures similar to that of *A. lewisi*. Head dorsally finely punctate with short pale hairs. Frons flat, clypeus narrow, epistomal suture visible. Subocular groove distinct. Labrum oblong with fine ciliation. Scape large, pedicel stout, joints 3 to 7 slender. Antennae 10-segmented, joints 8, 9 and 10 form loose but distinct club, the last joint rounded. Lacinia with one spine between hooks (Fig. 8). Prosthecal process of mandible is composed of rigid parallel hairs (or spines) (Fig. 5).

T h o r a x : Structures of ventral part of thorax similar to that of *A. lewisi*. Pronotum finely punctate with pale hairs (like head), lateral edges with toothlet and short ciliation. Front corners



Figs. 11-15: *Ancyrona diversa*: 11. labrum; 12. phallus; 13. tegmen ventrally; 14. spicular fork; 15. labium.

of Pronotum blunted, front margin of pronotum only slightly emarginate (Figs. 3, 7). Elytra without carinae, with eight double rows of round impressions (Fig. 3), each with short, fine semierect hair. The 9th row (or the 1st from suture) simple. Edge is formed along the 7th row (counted from suture). Anal veins 1A, 2A connected and scarcely perceptible. Veins 3A, 4A distinct; convergent along half of their length but unconnected (Fig. 2). Legs similar to those of *A. diversa*..

A b d o m e n : Tegmen situated laterally, flattened (Fig. 1), with struts and apodeme. Phallus extraordinarily thin (Fig. 1). Segment 9 reduced, spicular fork present. Two plates situated dorsoventrally in its membrane (Fig. 6).

All b o d y surface light or dark brown but paler antennae and legs.

B o d y l e n g t h : 3.1 - 4.5 mm.

D i s t r i b u t i o n : Japan (the holotype: "Sapporo, Junsay"; coll. ? G. Lewis), Central Europe.

M a t e r i a l e x a m i n e d : Central Europe: Hungaria (sex unknown): "Budapest Umgebung, Visegrad, Juni 1904"; (coll. Hungarian Natural History Museum, Budapest). Czechoslovakia: sex unknown: "Kamenica, ex larve 85, R. Veigler"; "Slovakia mer. or., Slovensky kras, 7488 Plesivec 7.VII.1985, M. Mikát leg."; "Kamenica n. H., Slov., 13.6.87, R. Fornusek"; "Kovac. Kop., 13.6.1989"; male: "Czechoslovakia, S Slovakia, Kovácov. kopce Hills, Kamenica n. Hronom, 13.6.1987, from branch of Quercus, M. Bednarik leg.". (Private collections of M. Bednarik, Olomouc and I. Jenis, Náklo; Czechoslovakia). The specimens are the first published records out of Japan.

Additions to Central-European species of Trogositidae.

Ancyrona japonica (REITTER, 1889): Described from Japan, shows a disjunctive distribution (for all known European specimens see above). New genus and species for West Palaearctics.

Nemozoma caucasicum MÉNÉTRIÉS, 1832: Known from Caucasus (Krasnodarsk env.) (for biology and distribution in the former Soviet Union see NIKITSKY, 1974). Several specimens are available from Czechoslovakia. New species for Europe east of the former Soviet Union.

Material examined: Czechoslovakia, Slovakia (sex unknown): "Trebisov, 9. 3. 1991, I. Smetana leg." (Coll. I. Jenis, Náklo, Czechoslovakia).

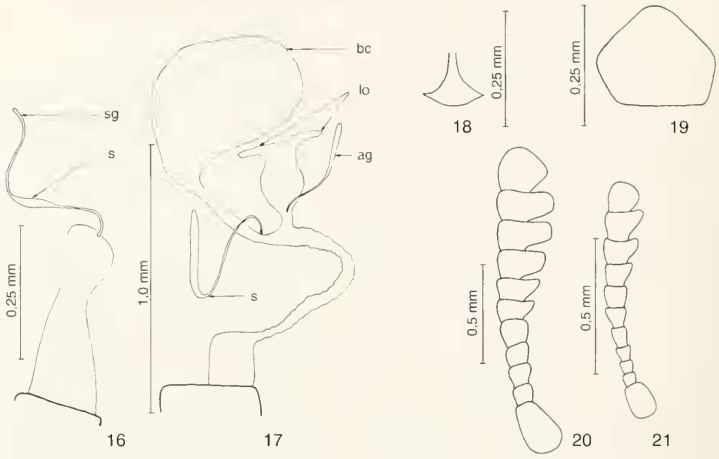


Fig. 16-21. 16. *Ancyrona diversa*, female internal copulatory organs. 17-19: *Ancyrona lewisi*: 17. female internal copulatary organs; 18. prosternal process; 19. mentum. 20. *Tenebroides fuscus*, antenna. 21. *Tenebroides mauritanicus*, antenna; (ag accessory gland; bc bursa copulatrix; lo lateral oviduct; s spermatheca; sg spermathecal gland).

Key to Central-European species of Trogositidae.*)

1. Lacinia with hooks (Fig. 8), mandible with mola or prosthecal process. Wide species: ratio width head/width pronotum about 0.5. General body form broad-oval. ..... 2.
– Lacinia without hooks, mandible without mola or prosthecal process. Narrower species: ratio width head/width pronotum near 1.0. General body form narrow-elongate. ..... 8.

2. Front coxal cavities closed. Dorsal body surface with yellowish decumbent scales and tufts of black erect club-shaped scales. Pronotum and elytra also with short, black, thick hairs. Longitudinal carina present in the half of elytral width so that each elytron rectangular if viewed from behind (9.0 - 12.0 mm). ..... *Calitys scabra* (THUNBERG, 1784)
– Front coxal cavities open behind. Body dorsally without scales. Elytra without such strongly prominent carinae. ..... 3.

3. Flat species, elytral ± distinct carinae. Anterior margin of pronotum emarginate. Body surface either glabrous or with sparse pubescence in rows. ..... 4.
– Convex species without elytral carinae. Head covered by pronotum. Body surface with long, light, dense, and erect pubescence (5.5 - 7.0 mm). ..... *Thymalus limbatus* (FABRICIUS, 1797)

4. Larger species (greater than 8 mm). Mandible with mola and male Sternum 8 without apodeme. Antennae 11-segmented. Tegmen with long phallobasic apodeme. Elytra naked. ..... 5.
– Smaller species (less than 8 mm). Mandible without mola (prosthecal process present) and antennae 10-segmented; or mola present and then male sternum 8 with apodeme; or tegmen without distinct phallabasic apodeme. Elytra with sparse ciliation in rows. ..... 6.

*) Names of taxa according to BANGSHOLT et al. (1979).

5. Pronotum nearly three times as wide as long. Each elytron with 3 carinae, about 5 rows of impressions present between them. Large species (Lenght over 12 mm). ..... *Peltis grossum* (LINNAEUS, 1758)
- Pronotum about twice as wide as long. Each elytron with 3 carinae, 2 rows of impressions and weak secondary carinae present between them. Smaller species (8 - 10 mm). ..... *Ostoma ferruginea* (LINNAEUS, 1758)

6. Tegmen without distinct phallobasic apodeme. Each elytron with 6 distinct carinae. (Length 2.0 - 2.5 mm). ..... *Lophocateres pusillus* (KLUG, 1832)
- Tegmen with phallobasic apodeme. Elytra with more than 6 carinae. Larger species. ..... 7.

7. Male Sternum 8 with apodeme (spiculum ventrale). Each elytron with 7 - 8 carinae. Mandibles with mola. Antennae 11-segmented. (5.0 - 6.0 mm). ..... *Grynocharis oblonga* (LINNAEUS, 1758)
- Male sternum 8 without apodeme. Elytra without distinct carinae, with double rows of ciliate impressions. Mandibles with prosthecal process. Antennae 10-segmented. (3.1 - 4.5 mm). ..... *Ancyrona japonica* (REITTER, 1889)

8. Body elongate, slender. Pronotum longer than wide. Frons deeply excavated, with two horns. Elytra as wide as pronotum. Elytra black or brown-black with two yellowish transverse stripes in anterior and posterior third. ..... *Nemozoma* LATREILLE, 1804

8a. Antennae 10-segmented. Pronotum about twice as long as wide, black. Elytra distinctly largely punctate. Smaller species: less than 5mm. ..... *Nemozoma elongatum* (LINNAEUS, 1761)

8b. Antennae 11-segmented. Pronotum about 1.5x longer than wide; its anterior third is red. Elytra finely punctate. Larger species: 5.5 - 9.5 mm. ..... *Nemozoma caucasicum* MÉNÉTRIÉS, 1832

- Body not so slender. Pronotum as wide as long or wider. Frons not so excavate. Elytra wider than pronotum. All body surface unicolorous: brown-black or blue. ..... 9.

9. Smaller (6.0 - 9.0 mm) brown or black species. Front pronotal corners acuminate. Antennal joints without fields of sensillae. ..... *Tenebroides* PILLER & MITTERPACHER, 1783

9a. Antennal joints 6 to 11 dilated (Fig. 20). Elytra slightly shining, densely transversely wrinkled. Frons narrower. ..... *Tenebroides fuscus* (GOEZE, 1777)

9b. Antennal joints 8 to 11 dilated (Fig. 21). Elytra dull, sparsely wrinkled. Frons wider. ..... *Tenebroides mauritanicus* (LINNAEUS, 1758)

- Larger (12.0 - 18.0 mm) blue species. Pronotum without acuminate corners. Antennal joints 9, 10, 11 with fields of sensillae on inner side. ..... *Temnochila caerulea* (OLIVIER, 1790)

Acknowledgements

My thanks are due to Michal Bednarik (Olomouc, Czechoslovakia), Josef Jelínek (National Museum, Prague, Czechoslovakia), Ivo Jenis (Náklo, Czechoslovakia), and Ottó Merkl (Hungarian Nat. Hist. Museum, Budapest, Hungary) for the loan of material of Ancyrona and Nemozoma

Summary

The state of knowledge of some trogositid genera is very poor at present. Also classification of those genera is confused and unclear.

This contribution in the first step to classification and knowledge of morphology of the genus *Ancyrona* REITTER, 1876. The type species of the genus (*A. lewisi* REITTER, 1876) was designated as the groundwork for its definition.

Except for it, the communication informs of two new trogositid species for Central Europe - *Ancyrona japonica* (REITTER, 1889) and *Nemozoma caucasicum* (MÉNÉTRIÉS, 1832).

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Ein Beitrag zur Kenntnis der Sandlaufkäferfauna des Sudan

(Coleoptera, Cicindelidae)

von Jörg Gebert

Mit einer Bestimmungssendung wurde eine bisher unbearbeitet gebiebene Cicindelidenaufsammlung aus dem vom Bürgerkrieg gezeichneten Sudan bekannt. Herrn Prof. Dr. H. Scherf (Unversität Gießen), der die Tiere zur Bearbeitung vermittelte, sei an dieser Stelle dafür gedankt. In den von Herrn Dr. D. Kock im Jahre 1962 untersuchten Gebieten hat in den vergangenen Jahren wohl kaum ein weiterer Entomologe gesammelt.

Neu für die Fauna des Sudan ist *Prothyma* (s. str.) *concinna* subsp. *duplicata* HORN 1923. Diese Unterart war bisher nur aus Äthiopien bekannt (HORN 1926, CASSOLA 1978, WIESNER 1992).

Besonders bemerkenswert ist der Umstand daß *Salpingophora rueppeli* (GUÉRIN-MÉNVILLE) und *Cephalota litorea* (FORSKÅL) nach Angaben des Sammlers an einem toten Knorpelfisch (Selachier) gefunden wurden. Erkenntnisse, wonach einzelne Cicindeliden als necrophag bekannt wurden, fehlen dem Autor. [Die Jagd auf andere aasbesuchende Insekten erscheint wahrscheinlicher (Anmerkung der Redaktion)].

Nachstehend wird eine kurze Liste der Arten und Fundorte gegeben. Die in Klammern bezeichneten Exemplare befinden sich in der Sammlung des Autors, alle übrigen in den Sammlungen des Institutes für Allgemeine und Spezielle Zoologie der Justus-Liebig-Universität Gießen. Eine kleine Karte (Abb. 1) erleichtert das Auffinden der Fundorte.